DOCUMENT RESUME

ED 259 411 CS 504 980

AUTHOR Edwards, Renee; And Others
TITLE Innovation in Business Organizations: Adoption of Japanese Management Principles and Communications Technologies.
PUB DATE Apr 85
NOTE 33p.; Paper presented at the Annual Meeting of the Southern Speech Communication Association (Winston-Salem, NC, April 11-14, 1985).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Administration; *Business Communication; *Communication Research; Computers; Employer Employee Relationship; Foreign Countries; Occupational Surveys; Organizational Communication; *Organizational Theories; Technological Advancement; *Telecommunications
IDENTIFIERS *Japan; *Management Practices; North Carolina

ABSTRACT

A survey was completed by 248 North Carolinian companies in a study conducted to determine the extent to which businesses have responded to recent theories on Japanese management principles and communication technologies. The five areas of the survey focused on (1) characteristics of the respondent and organization, (2) communication and decision making within the organization, (3) organizational change, (4) new communication technologies, and (5) familiarity with and adoption of Japanese management principles. The companies that were investigated demonstrated many characteristics typical of more authoritarian, small, nonunion organizations. Communication was typically downward, and most decisions were made by top level management. Most companies reported being affected by new technologies or advances in their industries, and most indicated high satisfaction with them. Only 60% had computers, 17% used electronic mail, 16% used Telex, and 4% participated in video teleconferences. One-third of those interviewed were not familiar with Japanese management practices, and only 17% were very familiar. Seventy percent of the companies made no attempt to adopt such principles. While 67% of those who had adopted some Japanese principles felt they were successful, 31% were neutral. (HTH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED259411

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)
X This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

Innovation in Business Organizations: Adoption of Japanese Management Principles and Communications Technologies

by

Renee Edwards, M. Lee Williams and T. Richard Cheatham

Renee Edwards
Department of Communication and Theatre
University of North Carolina at Greensboro
Greensboro, N.C. 27412

(919) 379-5297

M. Lee Williams
and
T. Richard Cheatham
Speech Communication and Theatre Arts
Southwest Texas State University
San Marcos, TX 78666

(512) 245-2166

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Renee Edwards
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Paper presented at the meeting of the Southern Speech Communication Association, Winston-Salem, N.C., April, 1985.

CS 504 980

BEST COPY AVAILABLE

Abstract for

Innovation in Business Organizations:

Adoption of Japanese Management Principles and

Communications Technologies

By reading the literature one might assume that almost every American business and industrial leader is aware of two issues confronting managers in the 1980's: Japanese approaches to management and new hi-tech office communications systems. A survey of 248 businesses in Greensboro, North Carolina, revealed that the owners/managers of many small businesses were either unaware of Theory Z management or have not adopted its principles. A similar pattern emerged concerning new communications technologies.

A Frenchman, a Japanese and an American faced a firing squad. Offered a last wish, the Frenchman asked to hear the Marseillaise. The Japanese asked to give one more lecture on Japanese management. The American asked to be shot first. "I can't stand another lecture on Japanese management," he said.

Innovation in Business Organizations: Adoption of Japanese Management Principles and Communications Technologies

The gap between theory and practice has perplexed theorists and practitioners alike from the days of the ancient Greeks to the modern era. While theorists fail to comprehend the reluctance of practitioners to translate theory into practice, practitioners express amazement that so many "ivory-tower," "pie-in-the-sky" ideas emerge from theorists who lack contact with the "real" world.

Today's managers are bombarded with theories and suggestions for increasing their management effectiveness. Scores of academic journals and "slick" publications are readily available with hundreds of articles aimed at pointing the way to successful management. While some of the "new approaches" appear on the horizon and then quickly fade into oblivion, other concepts catch the fancy of the theorists, as well as some of the practitioners, and become focal points of management dialogue for a period of years. Without doubt, two of the "hotest" topics in management literature today are Japanese management styles and the computerized, automated office.

Building upon a series of papers published during the 1970's, Ouchi published in 1971 his widely read Theory Z: How American Business Can Meet the Japanese Challenge. Almost immediately, Ouchi's Theory Z became the buzzword in management classes across America. Scores of articles and hundreds of workshops have focused on the best way to incorporate Ouchi's concepts into various businesses and industries. Writers have stressed the value of "quality circles" (Munchus, 1983) and other participative decision making features of the better

Japanese management models. Other writers, however, have countered that there is really no such thing as THE Japanese management approach (McAbee, 1983), arguing that some very successful Japanese companies are run almost exclusively by "the man at the top." Another recent criticism of Theory Z focused upon the assertion that cultural differences and vastly different incentive systems in the United States render the adaptation of Theory Z a virtual impossibility (Sullivan, 1983). Whether or not the proponents or opponents of Japanese management philosophy win the argument is not the concern of this study. Rather, we are concerned with the extent to which "typical" small and medium sized businesses are currently influenced by Theory Z approaches. In short, has the average manager of a small company been reached with the message of Theory Z, and has that manager attempted to implement any part of the Japanese management philosophy? While the corporate giants may be training their managers in the latest approaches, how far does practice lag behind theory in smaller organizations?

Aside from Japanese management techniques, perhaps the most significant new issue confronting managers in the 1980's is the extent to which innovative hi-tech communications systems should be incorporated into businesses or industries (Steele, 1983; Carter, 1983). As evidence of the growing demand for information concerning state-of-the-art communications hardware, the specialty publication, Telecommunications, boasted of a circulation in excess of 63,000 for its January, 1984, issue. In addition, more than half of the articles appearing in the October, 1983, issue of Management focused on futuristic

extensions of current hi-tech office communications systems, and the entire January, 1983, issue of The Office: Magazine of Management, Equipment, and Automation had as its theme "office communications." Among the topics explored by contributers were "Office Telephone Systems: An Industry in Transition," "Managing Information in Tomorrow's Office," "Transmission Technologies for Decision-Makers," and "Office Technology: Who is Master and Who is Slave?" Introducing the articles in the special issue, the editor referred to projections of the International Resource Developent Corporation that by 1990 purchases of automated office equipment would reach $36 billion annually, while expenditures on communications equipment would reach $400 billion annually. But just how aware of these new systems are the managers of small businesses and industries? To what extent are they incorporating new technologies into their organizations? The current survey was designed to help determine the extent to which businesses have responded to recent theory and technical innovations.

Methods and Procedures

Sample

The sample was drawn from tax paying businesses in Greensboro, North Carolina. Greensboro, the second largest city in North Carolina, is located in Guilford County. Approximately 8000 businesses are in Guilford County with 5000 to 6000 of them physically or nominally located in Greensboro. Fewer than a dozen companies in Guilford County employ over 1000 individuals while approximately three fourths of the companies employ fewer than 20 persons. About one third of the work force is employed in manufacturing compared to a national average of about 20%.

Only 6 to 7% of the work force in North Carolina is unionized while the national average is closer to 20%.

The list of all tax paying organizations in Guilford County was acquired from the county tax director. This list was divided into four sections; each was cluster sampled using a table of random numbers to provide an initial sample of 500 businesses. The initial sample was reduced by eliminating businesses for whom telephone numbers were unavailable, those located outside Greensboro, duplications and businesses which had gone out of business. This left a working sample of 248.

The Questionnaire

The instrument (Appendix A) included questions in four areas. Section One requested characteristics of the respondent and organization, Section Two asked for information about communication and decision making within the organization, and Section Three related to organizational change. Section Four dealt with new communication technologies, while Section Five concerned familiarity with and adoption of Japanese management principles. All questions in Sections Two, Three, Four and Five were closed-ended.

In Section One, respondents indicated how many people were currently employed in their business at that location, if the business was locally owned and operated, and their title or position in the company.

In Section Two, respondents were asked to identify which was most and least common: upward, downward or horizontal communication. They indicated if rewards and promotions within their company were based on seniority, productivity, both factors, or other factors. Respondents indicated if top

management makes all decisions, consults other management levels, consults the workers, or actually allows the work force to participate in decision making. Respondents also indicated if workers participated more, the same or less than in the past.

Worst and least communication problems were also assessed. Subjects chose from innacuracy of information, the difficulty of getting information, poor timing of information, and irrelevance of information. Respondents were asked if managers received any formal training, and if they were trained in human communication and interpersonal relations. Finally, respondents indicated whether job descriptions were clearly defined and put in writing for most, some or no employees.

Section Three of the instrument assessed organizational change. Subjects were first asked if new advances or technologies related to their industries were affecting their companies not at all, a little, some or a great deal. Second, they indicated if their companies were diversifying products or services not at all, a little, some or a great deal.

Section Four determined what communication technologies were used by the companies. Respondents were asked if their companies had a computer, and, if so, if they used it for word processing, storage of personnel information, storage of other information, or electronic mail. Use of Telex, telephone conference calling, video teleconferencing and "other" technologies was also assessed. When the technologies were available, respondents were asked if they were satisfied, neutral or dissatisfied with them.

Section Five measured familiarity with and adoption of Japanese management principles. Respondents were told that some

companies had grown interested in how the Japanese conduct business and were asked to indicate the extent to which they were familiar with Japanese style of management and concepts such as quality circles. Respondents were also asked if their companies had adopted some Japanese management principles not at all, some or to a great extent. If they responded affirmatively, they were asked if their experience had been successful, neutral or unsuccessful.

Procedure

Because of the potential for a higher rate of return and the increased opportunity to question an appropriate person, a telephone survey was conducted. Telephone calls and callbacks were made from the middle of October to the middle of November, 1983. At least two callbacks (and frequently 5 or 6) were made when necessary.

Upon reaching the businesses, callers introduced themselves and explained they were conducting a survey of Guilford County businesses. Callers than asked to speak with an owner, president or manager of the company. Upon reaching an appropriate person, callers requested the respondents to participate and assured them of the confidentiality of their responses.

Results

Rate of Return

Of the working sample of 248, 173 or 70% responded to the questionnaire. Of the other 75 or 30%, a few respondents refused to be surveyed, the survey was not applicable to some, while an appropriate person could not be reached for most of them.

Overall Results

Respondent and Organization Characteristics: Table 1 presents characteristics of the respondents and organizations surveyed. Forty-four per cent of the respondents were managers, 15% owners, 7% Presidents, 5% Personnel Directors, and 29% other. Of the 162 who responded to the question about ownership, 67% of the companies were locally owned and operated while 33% were not. The average number of employees was 33 with a standard deviation of 60.2. When size was recoded into four categories, 27% of the businesses had one to five employees, 25% had six to ten, 24% had 11 to 30, and 24% had over 30.

Communication and Decision Making: Table 2 presents the results concerning communication in the organizations and how decisions are made. Of the 137 respondents who identified the most common direction for the flow of communication, 53% said downward, 33% said horizontal, and 14% said upward. For 121 companies, the least common direction for communication was upward for 51%, horizontal for 30% and downward for 19%.

One hundred sixty-three respondents described the bases for rewards and promotions within their companies. Fifty-two per cent said they were based more on productivity, 6% said more on seniority, 39% said productivity and seniority were equally important, while 4% said rewards and promotions were based on other factors.

Decision making within their companies was identified by 151 respondents. Top management makes all decisions in 19% of the companies, it consults other management levels in 33%, it consults workers in 19%, and it actually allows the work force to participate in decision making in 30% of the companies.

According to 159 responses, in the past two years the work force has participated in decision making more than in the past for 36%, about the same for 60%, and less for 4%.

Worst communication problems were identified for 139 companies. Poor timing was selected by 40%, innacuracy of information by 26%, the difficulty of getting information by 22%, and irrelevance of information by 12%. The source of least problem was identified by 138 respondents. Forty-eight per cent chose irrelevance of information, while innaccuracy, poor timing and difficulty of getting information were identified respectively by 20%, 17% and 15% of the companies.

When asked if their managers participate in formal training programs, 37% of 165 respondents said yes. Of companies who train managers, 61% provide training in human communication and interpersonal relations. Finally, in Section Two, 163 respondents indicated how extensive written job descriptions are in their companies. Fifty-four percent said job duties and responsibilities are clearly defined and put in writing for most employees, 15% said they were available for a few or some employees, and 31% did not have them.

Organizational Change: Table 3 presents information regarding organizational change. Respondents were asked if new advances or technologies related to their industries were affecting their companies. Of 164 companies, 46% said they were affected a great deal, 31% reported some effect, 15% said a little, and 8% said they were not being affected by new technologies or advances in their industry. When asked if their companies were currently diversifying products or services, 163 individuals responded. Twenty-nine per cent said not at all,

17% said a little, 28% reported some, and 26% reported a great deal of diversification.

New Communication Technologies: Table 4 contains the results concerning new technologies. Of 163 respondents, 61% reported that they had a computer; 39% did not. Of 93 respondents with computers, 93% were satisfied. Word processing was performed by 32% of computer users, with 90% satisfaction. Personnel information was stored by 45% of computer users (88% satisfied), and other information was stored by 77% (95% satisfied). Only 16% of 96 companies with computers use them for electronic mail with 95% of them satisfied.

Telex was used by 16% of 161 companies with 96% of them reporting satisfaction. Of 162 companies, 30% made telephone conference calls (84% satisfied). Video teleconferencing was reported by only 7 (4%) companies, with 100% satisfaction for the six who so indicated. Finally, 17 (10%) respondents indicated use of "other" communication technologies; 94% were satisfied.

Relationship with Japanese Model: Table 5 presents the results of questions concerning Japanese management principles. One hundred sixty-one respondents described their awareness of Japanese style of management. Thirty-six percent said they were not familiar with it, 47% reported they were somewhat familiar, while 17% said they were very familiar with Japanese management principles. When asked if their companies had adopted some Japanese principles, 145 responses were provided. Seventy percent reported not at all; 26% said somewhat, and 4% said to a great extent. Repondents who reported any adoption were asked about their experience. Of 42 responses, 67% said their

company's experience had been successful, 31% described their experience as neutral, while 4% said unsuccessful.

Relationships among Characteristics

Four characteristics of the organizations surveyed were crosstabulated with the other characteristics in order to identify patterns of relationships: Technological Impact, Diversification, Japanese Adoption and Size. Chi Square tests were performed for all crosstabulations, with Yates correction for continutity for 2 by 2 tables. Table 6 presents the results of the Chi Square tests for the crosstabulations and distinguishes among values of $p<.10$, $p<.05$, and $p<.01$. Results with values of $.05 < p < .10$ are presented as "possible" relationships in the summary below.

Technological Impact: As noted earlier, respondents indicated the extent to which their companies were affected by new advances or technologies related to their industry. Responses were dichotomized with "Low Impact" representing companies affected not at all, a little or some, and "High Impact" representing companies affected a great deal. Approximately 50% of all companies fell in each category. High Impact companies may be more likely to involve the work force in organizational decision making than Low Impact companies, with more involvement in the past two years than previously.

High Impact companies were more likely to have formal training programs for managers and offer specialized training in human communication. They were also more likely to be currently diversifying products or services than Low Impact companies. High Impact companies were also more likely to have a computer, and may be more likely to use it for word processing and storage

of non-personnel information. Finally, respondents in High Impact Companies were more familiar with Japanese management principles than those in the Low Impact companies.

Diversification: Respondents indicated the extent to which their companies were currently diversifying products and services. This characteristic was collapsed to create three levels: No Diversification, Medium Diversification (representing those responding a little or some) and High Diversification (representing those responding a great deal). Roughly 30%, 40% and 30% of the companies fell into the No, Medium and High groups respectively. The three groups differed in identifying the communication problem which creates the least difficulty for them. All three groups identified irrelevance most frequently. However, the No Diversification companies were almost as likely to identify innacuracy, while the Medium Diversifiers named poor timing second most frequently, followed closely by difficulty. High Diversification companies listed innacuracy as a distant second, followed closely by difficulty and poor timing.

The Diversification groups differed in whether or not they offered formal training programs for managers and whether any training focused on human communication and interpersonal relations. High Diversification companies were more likely to have formal programs and communication training than No and Medium Diversification companies. Differences also occurred in the use of computer for word processing, and perhaps for storage of non-personnel information, electronic mail and the use of Telex. In each case, High Diversification commpanies appeared more likely to be using the technologies than No or Medium

Diversification companies. Diversification groups differed in their familiarity with Japanese management principles and perhaps in their adoption of them. High Diversifiers were more familiar with Japanese principles than Medium Diversifiers, and seemed more likely to have adopted them than No or Medium Diversification companies.

Adoption: Adoption of Japanese management principles was dichotomized into a Non-Adopter group, and an Adopter group (representing companies which had adopted somewhat or to a great extent). Non-Adopters and Adopters represented approximately 70% and 30% of the companies respectively. Adopters were more likely than Non-Adopters to involve the work force in decision making and perhaps more likely to have done that more in the past two years than previously.

Adopters were also more likely to have formal training programs for managers and to provide training in human communication and interpersonal relations. Adopters and Non-Adopters differed in their level of diversification. Adopters were more likely to be diversifying a little or a great deal, while Non-Adopters were more likely to be diversifying not at all or some.

Size: Size of companies was dichotomized into Small and Large, each accounting for about 50% of all companies. Small companies contained one to ten employees, while Large Companies had over ten. Large and Small companies differ in their use of written job descriptions, with Large companies more likely to have written descriptions for most employees and Small companies divided between descriptions for most employees or not at all. Large companies were also more likely to have a computer and to

use it for storage of non-personnel information and electronic mail.

Discussion

The companies investigated in the present survey demonstrated many characteristics typical of more authoritarian, small, non-union organizations. The most common communication was downward and the least common was upward. This indicates more interest in managerial communication and getting information from the top to the operational levels. Forty-three percent said upward communication was the least common. Placing such low priority on receiving messages from the lower levels of the organization is certainly not consistent with human resource theories of management and counter to some trends which indicate that the more sensitive organizations are to the messages of their workers, the more effective they are (Peters & Waterman, 1982). While respondents to the survey indicated that approximately 50% of the decisions were made by top management or it in consultation with other management levels, there was limited evidence of involving the work force in decision making more in recent years than in the past. Sixty percent indicated that in the past two years, workers were participating in decision making about the same as in the past.

Productivity was judged by 52% of the companies as the main basis for rewards and promotions, while seniority was of minimum importance. Companies more highly unionized usually must focus on seniority to a larger extent, and these results probably reflect the minimal impact of unions in the organizations surveyed. In addition, formal training for managers was minimal. Sixty-three percent had no training programs. The

worst communication problem was getting information at the wrong time and the problem creating the least difficulty was getting irrelevant information. Interestingly, getting innacurate information or the difficulty of getting information were not typically cited problems. These results parallel the findings of other research which indicates that the timeliness of information (i.e., information received late in most cases) is one of the major problems of workers as well as management (Goldhaber, Yates, Porter, and Lesniak, 1978). In addition to having limited utility, untimely information is also perceived as being of low quality.

Most of the companies surveyed reported being affected by new technologies or advances in their industries. Only 8% reported not being affected at all, while 77% were affected a great deal or some. The companies surveyed were diversifying to a lesser extent, with 29% reporting no diversification and 54% diversifying some or to a great extent.

Respondents to the survey showed very high satisfaction with the new communications technologies in their organization. Some researchers have expressed concern over the reduction of face to face interaction which could lead to less friendly and less personal relationships in the organization as well as produce resistance to the new technologies. However, research has shown that users typically increase their satisfaction and comfort with the new technology with increased use and that these new methods are very satisfactory in completing certain tasks in the organization (Rice, 1982). But while the satisfaction of users was high, most of the companies in the survey did not indicate that they were using many of the new

communications technologies. Only 60% had computers with just 17% using electronic mail, 16% using Telex and only 4% doing video teleconferencing. These findings could be an indication that while we should have some concern about the impact of new communications technologies, many or perhaps most businesses are presently not using these advances and are not seriously impacted by them or their potential drawbacks.

The limited impact of Japanese management principles was evidenced in the present survey. A third of those interviewed had no familiarity with the practices of the Japanese, and only 17% were very familiar. Seventy percent of the companies made no attempt to adopt any of the Japanese principles. These findings seem to indicate that while there might be alot of talk about Theory Z, very little is being done to apply it. While 67% of those who had adopted some Japanese principles felt they were successful, 31% were neutral. This may be a reflection of the trend detected by Goodfellow who discovered that 21 out of 29 U.S. companies using quality circles were not as successful as anticipated ("Why Quality Circles Failed in 21 Firms," 1982).

Crosstabulations revealed interesting patterns of relationships. Companies affected a great deal by new advances and technologies related to their industries were more likely to be diversifying, have formal training for managers with specialized communication training, have a computer and be familiar with Japanese management principles. However, they were not more likely to have adopted Japanese principles, experince different communication patterns or difficulties than companies less affected by industry advances or new technologies. Companies experiencing different levels of

diversification differed in their least significant communication problem, although the interpretation of the differences is complex. In other areas, high diversifiers offered formal training programs and specialized training in human communication more than companies diversifying more moderately or not at all. They were also more familiar with Japanese management principles and may be more likely to have adopted them. However, diversification groups did not differ in their communication patterns, decision making, reward strategies, or most serious communication problem.

Adopters of Japanese management principles seem to be employing selected parts of Theory Z, but have not adopted the theory outright or even incorporated significant elements of the approach. Consistent with Theory Z, adopters in the survey involved the work force more in decision making and had more general and communication training for managers. However, they did not display more upward or less downward communication, they did not base rewards and promotions on seniority or have fewer written job descriptions than did companies which have not adopted Japanese management principles. These findings reveal very limited adoption of Theory Z, in breadth and in depth. Few companies have adopted, and then only to a very limited extent.

Large and small companies differed in use of written job descriptions and availability and use of computers. Small companies were less likely to have clarified job descriptions or computer services. Interestingly, small companies did not have more upward or less downward communication, different bases for rewards, greater involvement by the work force in decision making or different communication problems than large companies.

Nor did the two groups differ in their familiarity or adoption of Japanese management principles.

Some final limiting comments should be made concerning the research. First, all the organizations surveyed were in Greensboro, North Carolina, so that the results may reflect some regional characteristics (such as the relative absence of unions). Second, the organizations were generally small, with 75% having fewer than 30 employees. As such, the results do not reflect the impact of recent innovations on large multinational corporations, but are limited to smaller, primarily local businesses which represent the majority of businesses in this country.

References

Carter, M. P. Determining information needs. Management Decision, 1983, 21, 45.

Goldhaber, G. M., Yates, M. P., Porter, D. T., & Lesniak, R. Organizational communication: 1978. Human Communication Research, 1978, 5, 76 - 96.

Henderson, M. M., & MacNaughton, M. J. (Eds). Electronic communication: Technology and impacts. Boulder, Colorado: Westview Press, 1980.

Hiemstra, G. Teleconferencing, concern for face, and organizational culture. In M. Burgoon (Ed.), Communication Yearbook 6, Beverly Hills, California: Sage Publications, 1982.

McAbee, M. Can Japanese "magic" work here? Industry Week, 1983, 218, 46.

Munchus, III, G. Employer-employee based quality circles in Japan: Human resource policy implications for American firms. Academy of Management Review, 1983, 8, 255.

Ouchi, W. Theory Z: How American business can meet the Japanese challenge. Reading, Mass.: Addison-Wesley, 1981.

Peters, T. J., & Waterman, R. H. In search of excellence: Lessons from America's best run companies. New York: Harper and Row, 1982.

Rice, R. E. Communication networking in computer-conferencing systems: A longitudinal study of group roles and system structure. In M. Burgoon (Ed.), Communication Yearbook 6, Beverly Hills, California: Sage Publications, 1982.

Steele, L. Managers' misconceptions about technology. Harvard Business Review, 1983, 83, 133.

Sullivan, J. J. A Critique of Theory Z. Academy of Management Review, 1983, 8, 132-142.

Why quality circles failed at 21 firms. Management Review, 1982, 71 (9), 56.

Table 1
Respondent and Organizational Characteristics

	Frequency	Percentage
Size of Organization		
1 to 5 employees	46	26.6
6 to 10 employees	43	24.9
11 to 30 employees	42	24.3
Over 30 employees	42	24.3
Type of Business		
Manufacturing	9	5.2
Distribution	20	11.6
Retail Sales	35	20.2
Service	69	39.9
Automotive	15	8.7
Trucking	6	3.5
Construction	7	4.0
Other	12	6.9
Ownership		
Locally Owned	108	62.4
Not Locally Owned	54	31.2
Do Not Know	2	1.2
No Response	9	5.2
Title of Respondent		
Owner	25	14.5
Co-owner	2	1.2
Manager	75	43.4
President	12	6.9
Personnel Director	9	5.2
Other	49	28.3
No Response	1	0.6

Table 2
Communication and Decision Making

	Frequency	Percentage	Adjusted Percentage
What is the most common communication in your organization?			
Downward	73	42.4	53.3
Upward	19	11.0	13.9
Horizontal	45	26.0	32.8
Do Not Know	14	8.1	----
No Response	22	12.7	----
What is the least common communication in your organization?			
Downward	23	13.3	19.0
Upward	62	35.8	51.2
Horizontal	36	20.8	29.8
Do Not Know	24	13.9	----
No Response	28	16.2	----
Are rewards and promotions based more on seniority or productivity?			
More on Productivity	84	48.6	51.5
More on Seniority	9	5.2	5.5
An Equal Mix of Both Factors	63	36.4	38.7
Other Factors	7	4.0	4.3
No Response	10	5.8	----
How are decisions made in your business?			
Top Management Makes All Decisions	28	16.2	18.5
Top Management Consults with Management	49	28.3	32.5
Top Management Consults with Workers	29	16.8	19.2
Top Management Allows Workers to Participate	45	26.0	29.8
No Response	22	12.7	----
In the past two years, how much has the work force participated in decision making?			
More than Previously	57	32.9	35.8
About the Same as in the Past	96	55.5	60.4
Less than in the Past	6	3.5	3.8
No Response	14	8.1	----
Which is the worst communication problem in your business?			
Getting Inaccurate Information	36	20.8	25.9
Difficulty of Getting Information	30	17.3	21.6
Getting Information at the Wrong Time	56	32.4	40.3
Getting Irrelevant Information	17	9.8	12.2
No Response	34	19.7	----
Which presents the least problem in your business?			
Getting Inaccurate Information	28	16.2	20.3
Difficulty of Getting Information	21	12.1	15.2
Getting Information at the Wrong Time	23	13.3	16.7
Getting Irrelevant Information	66	38.2	47.8
No Response	35	20.2	----

Table 2 - continued

	Frequency	Percentage	Adjusted Percentage
Does your company have any formal training programs for its managers?			
Yes	61	35.3	37.0
No	104	60.1	63.0
Do Not Know	1	0.6	-----
No Response	7	4.0	----
If you have any formal training programs for managers, is there any training in human communication and interpersonal relations?			
Yes	45	26.0	60.8
No	29	16.8	39.2
Do Not Know	1	0.6	-----
No Response	98	56.6	----
Are job duties and responsibilities clearly defined and put in writing?			
For Most Employees	88	50.9	54.0
For a Few or Some Employees	24	13.9	14.7
Not at All	51	29.5	31.3
Do Not Know	1	0.6	-----
No Response	9	5.2	----

Table 3
Organizational Change

	Frequency	Percentage	Adjusted Percentage
Would you say that new advances or technologies related to your industry are affecting your company?			
Not at All	13	7.5	7.9
A Little	25	14.5	15.2
Some	51	29.5	31.1
A Great Deal	75	43.4	45.7
Do Not Know	2	1.2	----
No Response	7	4.0	----
Is your company currently diversifying its products or services?			
Not at All	47	27.2	28.8
A Little	28	16.2	17.2
Some	45	26.0	27.3
A Great Deal	43	24.9	27.6
Do Not Know	2	1.2	----
No Response	8	4.6	----

Table 4
New Communication Technologies

	Frequency	Percentage	Adjusted Percentage
Are you using computers?			
Yes	99	57.2	61.0
No	64	37.0	39.0
Do Not Know	1	0.6	----
No Response	9	5.2	----
If you are using computers, how satisfied are you?			
Satisfied	86	49.7	92.5
Neutral	3	1.7	3.2
Dissatisfied	4	2.3	4.3
No Response	80	46.2	----
Are you doing word processing on a computer?			
Yes	41	23.7	32.8
No	82	47.4	65.6
Do Not Know	2	1.2	1.6
No Response	48	27.7	----
If you are doing word processing on a computer, how satisfied are you?			
Satisfied	35	20.2	89.7
Neutral	4	2.3	10.3
Dissatisfied	0	0	0
No Response	134	77.5	----
Are you keeping personnel information on a computer?			
Yes	44	25.4	36.1
No	75	43.4	61.5
Do Not Know	3	1.7	2.5
No Response	51	29.5	----
If you are keeping personnel information on a computer, how satisfied are you?			
Satisfied	35	20.2	87.5
Neutral	4	2.3	10.0
Dissatisfied	1	0.6	2.5
No Response	133	76.9	----

Table 4 - continued

	Frequency	Percentage	Adjusted Percentage
Are you storing other information on a computer?			
Yes	75	43.4	60.5
No	47	27.2	37.9
Do Not Know	2	1.2	1.6
No Response	49	28.3	----
If you are storing other information on a computer, how satisfied are you?			
Satisfied	62	35.8	95.4
Neutral	1	0.6	1.5
Dissatisfied	2	1.2	3.1
No Response	108	62.4	----
Are you using electronic mail services on a computer?			
Yes	21	12.1	16.9
No	100	57.8	80.6
Do Not Know	3	1.7	2.4
No Response	49	28.3	----
If you are using electronic mail services on a computer, how satisfied are you?			
Satisfied	19	11.0	95.0
Neutral	1	0.6	5.0
Dissatisfied	0	0	0
No Response	153	88.4	----
Are you using Telex?			
Yes	26	15.0	16.1
No	132	76.3	82.0
Do Not Know	3	1.7	1.9
No Response	12	6.9	----
If you are using Telex, how satisfied are you?			
Satisfied	25	14.5	96.2
Neutral	1	0.6	3.8
Dissatisfied	0	0	0
No Response	147	85.0	----

Table 4 - continued

	Frequency	Percentage	Adjusted Percentage
Are you using telephone conference calls?			
Yes	49	28.3	30.2
No	109	63.0	67.3
Do Not Know	4	2.3	2.5
No Response	11	6.4	----
If you are using telephone conference calls, how satisfied are you?			
Satisfied	38	22.0	84.4
Neutral	7	4.0	15.6
Dissatisfied	0	0	0
No Response	128	74.0	----
Are you using video teleconferencing?			
Yes	7	4.0	4.4
No	150	86.7	93.8
Do Not Know	3	1.7	1.9
No Response	13	7.5	----
If you are using video teleconferencing, how satisfied are you?			
Satisfied	6	3.5	100.0
Neutral	0	0	0
Dissatisfied	0	0	0
No Response	167	96.5	----
Are you using any other communication technologies in your company?			
Yes	17	9.8	100.0
No	0	0	0
Do Not Know	0	0	0
No Response	156	90.2	----
If you are using any other communication technologies in your company, how satisfied are you?			
Satisfied	15	8.7	93.8
Neutral	1	0.6	6.3
Dissatisfied	0	0	0
No Response	157	90.8	----

Table 5
Relationship with Japanese Management

	Frequency	Percentage	Adjusted Percentage
How familiar are you with Japanese styles of management and concepts such as quality circles?			
Not at All Familiar	58	33.5	36.0
Somewhat Familiar	76	43.9	47.2
Very Familiar	27	15.6	16.8
No Response	12	6.9	----
Has your company adopted some Japanese management principles?			
Not at All	102	59.0	70.3
Somewhat	37	21.4	25.5
To a Great Extent	6	3.5	4.1
No Response	28	16.2	----
If your company has adopted some Japanese management principles, has your experience been:			
Successful	28	16.2	66.7
Neutral	13	7.5	31.0
Unsuccessful	1	0.6	2.4
No Response	131	75.7	----

Table 6

Results of Chi Square Tests for Crosstabulations

by	Impact of Technology χ^2 [a]	Diversification χ^2 [a]	Japanese Adoption χ^2 [a]	Size χ^2 [a]
Most Common Direction	5.18 (4)	2.45 (4)	.39 (2)	3.50 (2)
Least Common Direction	2.47 (4)	2.81 (4)	.65 (2)	3.01 (2)
Basis for Rewards	1.05 (2)	1.97 (2)	1.01 (1)	1.59 (1)
Decision Making	4.59 (2)*	1.42 (2)	4.39 (1)**	2.41 (1)
Change in Above in Two Years	5.53 (2)*	1.42 (2)	3.61 (1)*	.52 (1)
Worst Communication Problem	5.34 (4)	.61 (4)	.07 (2)	1.60 (2)
Least Communication Problem	4.37 (4)	13.18 (3)**	2.64 (2)	4.89 (3)
Management Training	7.89 (2)**	11.18 (2)***	4.54 (1)**	.00 (1)
Communication Training	5.40 (2)*	7.63 (2)**	9.80 (1)***	1.12 (1)
Job Definitions	4.68 (4)	5.53 (4)	.83 (2)	8.30 (2)**
Technological Impact	--------	22.25 (6)***	2.98 (3)	2.84 (3)
Diversification	18.45 (6)***	---------	10.29 (3)**	4.49 (3)
Computer	6.93 (2)**	4.53 (2)	.46 (1)	10.93 (1)***
Word Processing	5.23 (2)*	10.37 (2)***	.88 (1)	2.16 (1)
Storage of Personnel Info.	3.26 (2)	1.44 (2)	.79 (1)	.96 (1)
Storage of Other Information	5.14 (2)*	4.81 (2)*	.76 (1)	5.95 (1)***
Electronic Mail	1.53 (2)	5.58 (2)*	.41 (1)	4.46 (1)**
Telex	.34 (2)	5.82 (2)**	1.58 (1)	.13 (1)
Familiarity with Japanese	21.23 (4)***	10.34 (4)**	--------	1.94 (2)
Japanese System Adoption	5.45 (4)	8.92 (4)*	--------	2.99 (2)

[a]Numbers in parentheses represent degrees of freedom for each Chi Square test.

*$p < .10$
**$p < .05$
***$p < .01$

BEST COPY AVAILABLE

Appendix A: The Questionnaire

1. How many people are currently employed at this location of this business?

2. What business is this company in, for example, trucking, retail, banking, etc?

3. Is this business locally owned and operated?

4. What is your title or position in this company?

5. Messages in an organization can flow downward (from superiors to subordinates), upward (from subordinates to superiors, and horizontally (between people at about the same level). Of these three directions, downward, upward, and horizontally, which is the most common in your organization?

6. Which is the least common?

7. Rewards and promotions within a business can be based on seniority or productivity. In your business, are they based
   a. more on productivity
   b. more on seniority
   c. an equal mix of those factors, or
   d. other factors

8. The next question is concerned with how decisions are made in your business. Does top management
   a. make all decisions
   b. consult other management levels before making decisions
   c. consult the work force before making decisions
   d. allow the work force to participate in actual decision making

9. In the past two years, has the work force participated
   a. more in decision making than previously
   b. about the same as in the past, or
   c. less than in the past

10. Some common communication problems facing businesses are
    a. getting inaccurate information,
    b. the difficulty of getting information
    c. getting information at the wrong time, and
    d. getting irrelevant information.
    Of these, inaccuracy, difficulty, poor timing, and irrelevance, which is the worst problem in your business?

11. Which presents the least problem?

12. Does your company have any formal training programs for its managers?

13. (if yes) Do managers receive any formal training in human communication and interpersonal relations?

BEST COPY AVAILABLE

14. Are job duties and responsibilities clearly defined and put in writing
    a. for most employees,
    b. for a few or some employees
    c. not at all

15. Would you say that new advances or technologies related to your industry are affecting your company
    a. not at all
    b. a little
    c. some, or
    d. a great deal

16. Is your company currently diversifying its products or services
    a. not at all
    b. a little
    c. some, or
    d. a great deal

17. A number of businesses are using new communications technologies. I'd like to know if your company is using any, and how you feel about them.
    a. First, do you have a computer? Are you satisfied, nuetral or dissatisfied?
        a1. Do you use it for word processing? Are you satisfied, dissatisfied, or neutral?
        a2. Do you keep Personnel information on it? Satisfied, dissatisfied or neutral?
        a3. Do you store other information on it? Satisfied?
        a4. Do you use electronic mail services on your computer? Satisfied?
    b. Do you use Telex? Satisfied?
    c. Telephone conference calls? Satisfied?
    d. Video teleconferencing, where you can see as well as hear the other people? Satisfied, etc?
    e. Are there any other communication technologies used in your company? If so, what are they? Are you satisfied, dissatisfied or neutral about them?

18. Some businesses have grown very interested in how the Japanese conduct business. In terms of your familiarity with Japanese style of management and concepts such as quality circles, would you say that you are
    a. not at all familiar
    b. somewhat familiar, or
    c. very familiar with them?

19. Would you say that your company has adopted some Japanese management principles
    a. not at all
    b. somewhat, or
    c. to a great extent

20. (If b or c) Has your experience with the Japanese principles been
    a. successful
    b. neutral, or
    c. unsuccessful?